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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,100

12/27/2004

Stephane Leriche

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LOWE HAUPTMAN & BERNER, LLP
1700 DIAGONAL ROAD, SUITE 300
ALEXANDRIA, VA 22314

EXAMINER

CHEN, YI

ART UNIT

PAPER NUMBER

2142

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,100	Applicant(s) LERICHE ET AL.	
	Examiner YI CHEN	Art Unit 2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/27/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-14 are pending in this application. Claims 1-14 are amended by a preliminary amendment filed 12/27/2004.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claims 1 and 8 recite "it". However, it is unclear whether the limitation refers to the system or the equipment item.
- b. Claims 2-7 and 9-14 are rejected because they fail to resolve the deficiency of claims 1 and 8 above.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-14 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

a. Claim 1 recites a computer program product that encompasses mere software, per se. The claim recites an object-oriented interface for communicating with other objects. The claim also recites observer for recording the events resulting from operation of the equipment. Accordingly, the claim as a whole may be rendered with software.

b. Claims 2-14 fail to resolve the deficiency of claim 1 above.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States .

7. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ellis et al., (US 2002/0026514 A1), for at least the reasons given in December 15, 2003 European Search Report.

8. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Larsson, (US 2002/0029378 A1), for at least the reasons given in December 15, 2003 European Search Report.

9. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Cohen et al., (US 6,286,028 B1), for at least the reasons given in December 15, 2003 European Search Report.

10. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson, (WO 98/19239), for at least the reasons given in December 15, 2003 European Search Report.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. **Claims 1-4 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Provan et al., (US 6,208,955 B1, hereinafter Provan), in view of Bhat, (US. 7,062,516 B2).**

13. Regarding claim 1, Provan discloses for each equipment item, an object-oriented interface with object aspect, (object oriented software components, col.13, lines 40-46), means, enabling it to recognize the equipment to which it is assigned, (col. 14, lines 30-

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36, anything change in the avionics system, the system will recognize it automatically), capable of communicating with other objects according to an object-oriented client/server model, (col. 13, lines 50-60, Corba is responsible to communicate with other object).

Provan doesn't disclose with observer means recording the events resulting from operation of the equipment.

Bhat discloses with observer means recording the events resulting from operation of the equipment, (col. 10, lines 65-67, col. 11, lines 1-3).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Bhat with the teachings of Provan because observer can monitor the operations between the devices and detect the error associated with the communication, (Bhat, col. 11, line 20).

14. Regarding claim 2, Provan discloses said object-oriented interface comprises an object aspect provided with subscription-based communication services, (col. 13, lines 50-60, Cobra).

15. Regarding claim 3, Provan discloses said object-oriented interfaces comply with a multi-vendor distributed applications protocol, (col. 13, lines 55-65).

16. Regarding claim 4, Provan discloses said object-oriented interfaces comply with the CORBA standard devised by the Object Management Group, (col. 13, lines 50-60).

23. Regarding claim 12, Mayo discloses a dedicated bus, wherein said object-oriented interfaces are connected to their assigned equipment items via the dedicated bus, (col. 8, line 18).

17. Regarding claim 13, Provan discloses a dedicated bus, wherein object-oriented interfaces intercommunicate via the dedicated bus, (col. 8, line 18).

18. **Claims 5, 7 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Provan and Bhat as applied to claim 1, in view of Mayo et al., (US 6,529,936 B1, hereinafter Mayo).**

19. Regarding claim 5, Provan and Bhat do not disclose object-oriented interfaces comply with the Java Remote Method Invocation protocol.

Mayo discloses said object-oriented interfaces comply with the Java Remote Method Invocation protocol, (col. 8, line 35).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Mayo with the teachings of Provan and Bhat because the object in the device can communicate with other objects with different protocols.

20. Regarding claim 7, Provan and Bhat do not discloses object-oriented interfaces intercommunicate via an object called an adapter object provided with means of

adapting the format of the messages and events generated by the object-oriented interfaces so that they can be understood by the recipient object-oriented interface.

Mayo discloses object-oriented interfaces intercommunicate via an object called an adapter object provided with means of adapting the format of the messages and events generated by the object-oriented interfaces so that they can be understood by the recipient object-oriented interface, (col. 5, lines 21-35, the virtual machine used by the web server 11 provides an interpreter for Java code, col. 11, lines 34-53, the interface manager returns format information from the request URL).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Mayo with the teachings of Provan and Bhat because the third party system can recognize the data which is exchanged between casual network models and design model, (col. 7, lines 10-25).

21. Regarding claim 8, the claim is rejected for the same reasons as claim 7 above. In addition, Mayo discloses it includes a configuration object recognizing all the objects, of the network and all the services, (col. 8, lines 39-55), and handling the creation of the adapter objects, (col. 6, lines 37-40, col. 8, lines 56-62).

22. Regarding claim 9, Provan discloses an adapter object complies with the CORBA standard devised by the Object Management Group. (col. 13, lines 50-60, Cobra).

23. Regarding claim 10, the claim is rejected for the same reasons as claim 7 above. In addition, Mayo discloses an adapter object complies with the Java Remote Method Invocation protocol, (col. 8, lines 35).

24. **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Provan and Bhat as applied to claim 1, in view of Larson et al., (US 6,442,460 B1, hereinafter Larson).**

25. Regarding claim 6, Provan and Bhat do not disclose said object-oriented interfaces comply with the Simple Object Access Protocol devised by the World Wide Web Consortium.

Larson discloses said object-oriented interfaces comply with the Simple Object Access Protocol devised by the World Wide Web Consortium, (col. 5, line 55).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Larson with the teachings of Provan and Bhat because the object in the device can communicate with other objects with different protocols.

26. **Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Provan, Bhat and Mayo as applied to claim 1, in view of Larson.**

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27. Regarding claim 9, Provan, Bhat and Mayo do not disclose an adapter object complies with the Simple Object Access Protocol devised by the World Wide Web Consortium.

Larson discloses an adapter object complies with the Simple Object Access Protocol devised by the World Wide Web Consortium, (col. 5, line 55).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Larson with the teachings of Provan, Bhat and Mayo because the object in the device can communicate with other objects with different protocols.

28. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mayo and Bhat as applied to claim 1, in view of Corwin et al., (US 2003/0004641 A1, hereinafter Corwin).

29. Regarding claim 14, Provan and Bhat do not disclose Corwin discloses wherein one of the aeronautical equipment items is an air traffic collision avoidance system TCAS and another aeronautical equipment item is a flight computer FMS.

Corwin discloses wherein one of the aeronautical equipment items is an air traffic collision avoidance system TCAS, (page 2, [0033], line 20), and another aeronautical equipment item is a flight computer FMS, (page 3, [0048], line 3).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Corwins with the teachings of Provan and Bhat because the device can be treated as specific aeronautical equipments.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YI CHEN whose telephone number is (571)270-3805. The examiner can normally be reached on 8:30AM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Caldwell/
Supervisory Patent Examiner, Art
Unit 2142

Yi Chen
9/2/2008